

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/001794

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> C12N 7/01; A61K 48/00; C12N 15/861; C12N 5/10																							
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched C12N 7/01; A61K 48/00; C12N 15/861; C12N 5/10 Electronic data base consulted during the international search (name of data base, and, where practicable, search terms used) NCBI, QWEB, ESP@CENET, Medline, NTIS, USPTO, Canadian Patent Database, Caplus, Biosis, Terms: Adenovirus, tropism, peptide, E-coil, K-coil																							
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>BARNETT, B.G., et. al. "Targeted adenoviral vectors", BIOCHIMICA ET BIOPHYSICA ACTA, ELSEVIER, AMSTERDAM, NL. 3 May 2002 (3.05.2002) vol. 1575, no. (1-3), pages 1-14 PMID 12020813 In particular see pages 7-9</td> <td>1-9, 12, 13, 16-22, 25-33</td> </tr> <tr> <td>X</td> <td>KRASNKH, V., et. al. "Genetic Targeting of an Adenovirus Vector via Replacement of the Fiber Protein with the Phage T4 Fibrin" JOURNAL OF VIROLOGY, AMERICAN SOCIETY FOR MICROBIOLOGY, May 2001, vol. 75 pages 4176-4183</td> <td>1-9, 12, 13, 16-22, 25-33</td> </tr> <tr> <td>X</td> <td>EINFELD, D.A., et. al. "Construction of a pseudoreceptor that mediates transduction by adenoviruses expressing a ligand in fiber or penton base" JOURNAL OF VIROLOGY, AMERICAN SOCIETY FOR MICROBIOLOGY, November 1999, vol. 73, no. 11, pages 9130-9136 PMID 10516019</td> <td>1-9, 12, 13, 16-22, 25-33</td> </tr> <tr> <td>X</td> <td>NICLIN, S.T., et. al. "Ablating Adenovirus Type 5 Fiber-CAR Binding HI Loop Insertion of the SIGYPLP Peptide Generate an Endothelial Cell-Selective Adenovirus" MOLECULAR THERAPY, THE AMERICAN SOCIETY OF GENE THERAPY, December 2001, vol. 4, no. 6, pages 534-542 PMID 11735337</td> <td>1-9, 12, 13, 16-22, 25-33</td> </tr> <tr> <td>A</td> <td>CA 2,234,073 A1 (HOUSTON, M.E. Jr., et. al.; Pence Inc.) 10 April 1997 (10.04.1997)</td> <td>1-33</td> </tr> <tr> <td></td> <td>CA 2,190,494 A1 (HODGES, R.S., et. al.; Pence Inc.) 23 November 1995 (23.11.1995)</td> <td>1-33</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	BARNETT, B.G., et. al. "Targeted adenoviral vectors", BIOCHIMICA ET BIOPHYSICA ACTA, ELSEVIER, AMSTERDAM, NL. 3 May 2002 (3.05.2002) vol. 1575, no. (1-3), pages 1-14 PMID 12020813 In particular see pages 7-9	1-9, 12, 13, 16-22, 25-33	X	KRASNKH, V., et. al. "Genetic Targeting of an Adenovirus Vector via Replacement of the Fiber Protein with the Phage T4 Fibrin" JOURNAL OF VIROLOGY, AMERICAN SOCIETY FOR MICROBIOLOGY, May 2001, vol. 75 pages 4176-4183	1-9, 12, 13, 16-22, 25-33	X	EINFELD, D.A., et. al. "Construction of a pseudoreceptor that mediates transduction by adenoviruses expressing a ligand in fiber or penton base" JOURNAL OF VIROLOGY, AMERICAN SOCIETY FOR MICROBIOLOGY, November 1999, vol. 73, no. 11, pages 9130-9136 PMID 10516019	1-9, 12, 13, 16-22, 25-33	X	NICLIN, S.T., et. al. "Ablating Adenovirus Type 5 Fiber-CAR Binding HI Loop Insertion of the SIGYPLP Peptide Generate an Endothelial Cell-Selective Adenovirus" MOLECULAR THERAPY, THE AMERICAN SOCIETY OF GENE THERAPY, December 2001, vol. 4, no. 6, pages 534-542 PMID 11735337	1-9, 12, 13, 16-22, 25-33	A	CA 2,234,073 A1 (HOUSTON, M.E. Jr., et. al.; Pence Inc.) 10 April 1997 (10.04.1997)	1-33		CA 2,190,494 A1 (HODGES, R.S., et. al.; Pence Inc.) 23 November 1995 (23.11.1995)	1-33
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Date of the actual completion of the international search 24 December 2004 (24-12-2004)		Date of mailing of the international search report 24 February 2005 (24-02-2005)																					
Name and mailing address of the ISA/ Commissioner of Patents Canadian Patent Office - PCT Ottawa/Gatineau K1A 0C9 Facsimile No. 1-819-953-9538		Authorized officer Nancy L. Trus (819) 953-3355																					

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
**PCT/CA2004/001794**

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
CA2234073 A1	10-04-1997	AU695679 B2	20-08-1998
		AU7258496 A	28-04-1997
		CA2234073 A1	10-04-1997
		EP0854931 A1	29-07-1998
		JP11512620T T	02-11-1999
		WO9712988 A1	10-04-1997
CA2190494 A1	23-11-1995	AT196297T T	15-09-2000
		AU708472 B2	05-08-1999
		AU719469 B2	11-05-2000
		AU2441895 A	05-12-1995
		AU2805995 A	05-01-1996
		AU4753996 A	31-07-1996
		AU6118196 A	15-01-1997
		CA2190494 A1	23-11-1995
		CA2224086 A1	03-01-1997
		CA2361012 A1	03-01-1997
		CA2372569 A1	23-11-1995
		DE69518838D D1	19-10-2000
		DE69518838T T2	03-05-2001
		EP0759941 A1	05-03-1997
		EP0802991 A1	29-10-1997
		EP0833836 A1	08-04-1998
		JP10504018T T	14-04-1998
		JP10512228T T	24-11-1998
		JP11507648T T	06-07-1999
		US5549748 A	27-08-1996
		US5738996 A	14-04-1998
		US5824483 A	20-10-1998
		WO9531480 A1	23-11-1995
		WO9534575 A1	21-12-1995
		WO9621756 A1	18-07-1996
		WO9700267 A1	03-01-1997

**International Depository Authority of Canada**  
National Microbiology Laboratory, Health Canada  
1015 Arlington Street  
Winnipeg, Manitoba Canada R3E 3R2

Tel: (204) 789-2070  
Fax: (204) 789-2097

International Form IDAC/BP/9

**STATEMENT OF VIABILITY**

(Issued pursuant to Rule 10.2 of the *Budapest Treaty* Regulations)

**Party to Whom the Viability Statement is Issued**

Name: Christian Cawthorn

Address: 1981, avenue McGill College, Bureau 1600, Montreal, PQ, Canada H3A 2Y3

**Depositor**

Name: NRC

Address: Biotechnology Research Institute, 6100 Av Royalmount, Montreal, Quebec  
H4P 2R2

**Identification of the Deposit**

Accession Number given by the International Depository Authority: 211004-01

Date of the original deposit (or most recent relevant date): October 21, 2004

**Viability Test**

Viability of the deposit identified above was tested on (most recent date): Nov. 26, 2004


On the date indicated above, the culture was:

☒ viable

☐ no longer viable

Conditions under which the Viability Test were performed (to be filled in if the information has been requested and the results of the test were negative): \_\_\_\_\_

Signature of person(s) authorized to represent IDAC

  
Date: November 26, 2004

**International Depository Authority of Canada**  
National Microbiology Laboratory, Health Canada  
1015 Arlington Street  
Winnipeg, Manitoba Canada R3E 3R2



Tel: (204) 789-2070  
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**Depositor**

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Address: Biotechnology Research Institute, 6100 Av Royalmount, Montreal, Quebec  
H4P 2R2

**Identification of the Deposit**

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**Viability Test**

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Name: NRC

Address: Biotechnology Research Institute, 6100 Av Royalmount, Montreal, Quebec  
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**Identification of the Deposit**

Accession Number given by the International Depository Authority: 211004-03

Date of the original deposit (or most recent relevant date): October 21, 2004

**Viability Test**

Viability of the deposit identified above was tested on (most recent date): Nov. 26, 2004

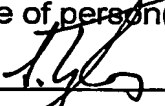
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